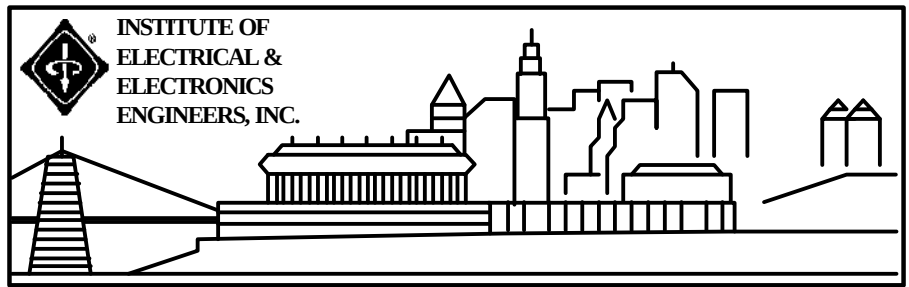


**IEEE CINCINNATI
SECTION
NEWSLETTER
JANUARY 2001**



JANUARY MEETING

ELECTRIC POWER INDUSTRY DEREGULATION

DATE : Thursday, January 25, 2001

PLACE : Evendale Buffet, 10784 Reading Road

TIME : 5:30 p.m. to 7:00 p.m.- Social Time/Dinner
7:00 p.m. to 8:30 p.m - Program

Please call the Cincinnati Section Voice Mailbox at 513-629-9380, by **Noon, Tuesday, January 23, 2001** if you plan to attend. Please leave your **Name, IEEE Member Number,** and **a daytime telephone number.**

The Evendale Buffet offers a wide selection of entrees, salads, soups, side dishes and desserts all for the price of \$8.25 per person, not including beverage. There is also a bar available for the purchase of alcoholic drinks. It is located at 10784 Reading Road, approximately 1 mile north of Glendale-Milford Road on the east side of Reading across from Furrows. Take I-75 to the Glendale-Milford Rd. Exit, go east on Glendale-Milford Road approximately 3/4 of a mile to Reading Rd. and turn left on Reading.

ABOUT THE MEETING: The electric power industry is rapidly changing. In the transmission part of the business, federal legislation requires utilities to provide open access transmission service to all customers, and recently federal regulators have issued orders requiring the development of regional transmission organizations (RTOs) to promote competitive wholesale markets and maintain reliability. These RTOs are formed by merging several transmission systems in a region and creating a large independent transmission company, or establishing an independent third party to operate the transmission systems of several utilities.

On the generation side of the business, wholesale transactions are largely deregulated. Electric utilities are not the only buyers and sellers of electricity - electric power marketers and traders are buying and selling billions of dollars of electricity annually in the wholesale markets. Merchant generating plants are being built by independent power producers to sell power into the wholesale market. These plants typically sell into the short term market and do not have firm contracts for the purchase of the output. The wholesale electric power market is very volatile today, with price swings in the order of 5000%. Also, many states have deregulated the retail side of the business. California is a retail deregulation disaster, while other states like Pennsylvania have had successful deregulation experiences. Closer to home, Ohio electric retail choice began this month.

Our speaker will be Mr. John C. Procario, Vice President and Chief Operating Officer of Energy Delivery, Cinergy. He will discuss the changes in the electric power industry and how these changes affect our businesses and our homes.

ABOUT THE SPEAKER: Mr. Procario received a BS degree in electrical engineering and a MS degree from Ohio State University in 1973 and 1974. He has held various engineering and managerial positions with Cincinnati Gas & Electric beginning in 1974, including Manager of Electric Planning and Manager of Electric System Operations. After the merger of PSI Energy and CG&E to create Cinergy, he held various positions including General Manager of Electric System Operations, General Manager of Bulk Power Resource Management, Vice President of Electric System Operations, and Vice President of Electric Operations. He is presently responsible for the planning, engineering, construction, maintenance, and operation of the Cinergy electric and gas transmission and distribution systems in Ohio, Kentucky and Indiana. He is also responsible for customer service activities for Cinergy, including billing and call centers. He has also taught in the College of Engineering at the University of Cincinnati since 1975. Mr. Procario has participated in various industry organizations including the ECAR Executive Board, the NERC Engineering Committee, and the EPRI Electrical Systems Committee. He is also a member of IEEE and has held various positions in the Cincinnati Section.

TO SUBSCRIBE TO THE ELECTRONIC NEWSLETTER

This newsletter is only available via e-mail or the Section's web page at <http://ieee.cincinnati.fuse.net/> with the exception of new Section members (one issue only) or members who have specifically requested a copy be delivered through the U. S. Mail.

If you are a new Section member and would like to get this newsletter electronically, please contact Bob Morrison (Editor) at **513-287-3697** or by e-mail at j.r.morrison@ieee.org. Provide your name and member number. In case there are questions, please include a daytime telephone number as well.

If you would like the "Snail Mail" version, you must contact Bob Morrison via the above means or call the Section's voice mail at **513-629-9380**.

CONGRATULATIONS!

Congratulations to our newly elected Section Officers: Tom Grau (Chair), Laurie Tappel (Vice-Chair), Allison Santoro (Secretary), Orest Melnyk (Treasurer) and Steve Olenick (Member-At-Large).

CHAIR'S MESSAGE

by Tom Grau, Section Chair

By now the last strains of *Auld Lang Syne* have faded, the party noise makers have ceased and it's now time to look forward to a new year: Welcome to the Twenty First Century, while some of us have been there for a year now others of us have just begun. And this is what I'm about to do – begin. As a newly elected chairperson of the Cincinnati Section, I welcome you.

In this new responsibility, I would like to pledge my support to you and to your Section. The Section's **Mission** is to serve the membership of this Section and to support the Societies that our membership belongs to. My **Vision** for our Section is that we enrich our member skills through program presentations of current technology.

The December Meeting, held at the Vinoklet Winery, enjoyed a good turn-out in addition to good food and wine. On behalf of the Cincinnati Section, I wish to thank Kreso Mikulic, the owner of Vinoklet Winery for his hosting and discussions. His presentation was a mixture of his experience in the field of electric motor design and his philosophy for success.

UPCOMING SECTION MEETINGS AND TOPICS

February 2001	Section Meeting - ESC Banquet
March 27, 2001	Section Meeting - DSL
April 26, 2001	Section Meeting - PACE
May 2001	Section Meeting - Harris HDTV Tour
Sept. 2001	Section Meeting - Tour of Kings Island

Topics are tentative at this time. Detailed information about the Section Meetings will be included in that month's newsletter. If you are interested in attending an Executive Committee Meeting, please contact either Ron Harbaugh (513-352-2941, Ron.Harbaugh@CinPD.RCC.ORG) or Jack Beckmeyer (513-353-3834, j.beckmeyer@ieee.org).

NEW MEMBERS

The following individuals are IEEE members who are new to our Section:

LAKSHMINARASIMH ACHUTHARAMAN	EMMANUEL FERNANDEZ	ARUNANSU PATTANAYAK
DAVID A. AKERS	M. D. HARDY	JASON W. PAUL
ROY A. AUERBACH	JEFFREY S. HITCHCOCK	RAJESH RADHAKRISHNAN
SHANE BACKLIN	JOHN F. KLINE	JAMES ROGERS
RAOUL F. BADAOU	MICHAEL KOSS	JACOB B. SANDOVAL
KEVIN J. BERNDSEN	KYEONGTAE K. LEE	SUMIT SEN
NATHAN R. BOHNE	CHARLES E. LOCKHART	PHILLIP SOOKOOR
EDWARD S. BRINKMAN	SHAWN MUMMERT	RAVI SRINIVASAN
JOHN BUERGEL	C. C. NEADERHOUSER	KAREN A. TOMKO
GINA N. BUSH	CAREY M. NIXON	DANIEL J. TUCKER
NARAYANAN C. CHIDAMBARAN	ADAM R. NOLAN	DAVID M. VALKO
DERRICK I. COBB	KEVIN L. OCHTERSKI	PHILIP A. WILSEY
DALE W. DICKERHOOF	GREGORY A. OLMSTED	

We wish to extend our welcome to all of our Section's new members!!!

ATTENTION Seniors and Retirees ! CHECK on RESC Activities !

The Retired Engineers and Scientists of Cincinnati – RESC for short – invite those who are retired or semi-retired and would like to share good fellowship while pursuing interests in technical, community, nostalgia, travel, and business, or industry developments. Activities include monthly luncheon meetings, periodic plant tours, and golf in season. For example; fall 2000 events began with an OKI Transportation Staff presentation on “Plans for Light Rail along the I-71 Corridor”, a tour of the “state of the art” high speed printing presses at Dayton Daily News, and golf rounds.

Luncheon meetings are held on the third Tuesday of each month from October through May, usually on the lower level the Unity Center, 1401 McMillan Ave. at Grandview Ave., just east of the former Engineering Society building.

RESERVATIONS and INFORMATION available by telephoning RESC contacts at either **(513) 231-7831 or (513) 751-8035**

NEXT MEETING:

Tuesday, January 16 Luncheon meeting -- Reservations required by January 10
11:30 AM program: STEAMBOATIN' & NATURE of the RIVERS

by Jim Williams
Retired Chief Naturalist and Program Supervisor
Hamilton County Park District

Jim will present the natural history of our great heartland rivers since earliest exploration and the changes as viewed from steamboats of earlier times to present day journeys aboard the steamboats of the Delta Queen Co., for which he presents nature programs. A former science teacher, he also has important roles at the Cincinnati Nature Center and Hamilton County Fair.

TOPICS of luncheon meetings later on winter / spring schedule include:

Digital Photography

Technology in Archaeology

Lasers and Medicine

Enjoy these activities with this active group of about 200 members. Spouses are always welcome and special events are planned especially for their enjoyment.

RESC The Retired Engineers and Scientists of Cincinnati

Luncheon Meeting Schedule – (at Unity Center), January through May 2001

Tuesday, Jan. 19
11:30 AM

Riverboatin' and Nature of the Rivers

Jim Williams, retired Chief Naturalist of the Hamilton County Park District will present the natural history of the heartland rivers since early exploration to the perspective from decks of early riverboats and the “tall-stack” steamers.

Tuesday, Feb. 20
11:30 AM

Technology and Archaeology

Joe Shomaker, Cultural Resource Manager, Fluor Fernald
Beginning with the areas prehistoric peoples, Joe will describe the artifact findings and newer technologies which assist preservation or restoration in compliance with regulations to honor the native Americans.

Tuesday, Mar. 20
11:30 AM

Digital Photography Update

Richard White, RESC member, retired P&G metallurgical engineer will describe how the latest digital equipment allows the typical “prosumer” 35-mm camera traveler new convenience and skills, including tips and cautions, as well as coordination with accessories including laptop or desk computers and software.

Tuesday, Apr. 17
11:30 AM

Egypt – Cruising Up the Nile

Fae Audre Rice & Harold Rice, RESC members, retired Science teacher & electrical engineer respectively, will describe the wonders of ancient kingdoms along the Nile from Alexandria to Abu Simbel including Valley of the Kings and Valley of the Queens, and many temples, as well as the Pyramids and Sphinx at Gizeh.

Tuesday, May 15
11:30 AM

Trends in Medical Surgical Laser Therapy

(at Quality Inn Central) Judy Chamberlain, RN, MSN, Consultant and Lecturer on Laser Safety
With a background as Nurse and the Laser Safety Officer at Christ Hospital, she will describe structure and function of lasers and tissue response, with examples of

primary uses. Also, the hazards, and controls necessary for safety of patients and providers.

Plant Tour Schedule - January through May 2001

- Thursday, Mar. 22 **General Electric Aircraft Engine**
10:00 AM Museum and Assembly Plant - Evendale, OH
View the evolution of turbojet engines from the first US built one to the CF-6 that powers largest planes today and its assembly
Followed by lunch at Cookers, Springdale
- Wednesday, Apr. 18 **Cintas – “The Uniform People” - Mason ,OH**
10:00 AM Witness uniform tailoring and logo embroidering, warehousing, and order handling processes of this major uniform supplier.
Followed by lunch at Lone Star Steakhouse, Mason
- Wednesday, May 9 **Fernald – EPA Clean-up Site - Ross, OH**
10:30 AM A bus tour of the site of this \$290,000 per year project which includes structure and process facilities demolition, aquifer restoration, and low level nuclear waste handling and preparation for removal.
Followed by lunch at Bier Haus, Miamitown
-

Scanning the Past: A History of Electrical Engineers from the Past

Submitted by Dick Reiman, Historian

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The Legacy of Edwin Howard Armstrong

Edwin Armstrong is widely regarded as one of the foremost contributors to the field of radio-electronics and was inducted into the National Inventors Hall of Fame in 1980. Among his principal contributions were regenerative feedback circuits, the superheterodyne radio receiver, and a frequency -modulation radio broadcasting system. As an independent inventor whose patented inventions served as important pawns in an arena of corporate conflicts over dominance in the radio industry, he devoted much money, time, and energy to efforts to establish his priority both in the legal sense and in the eyes of his peers. The frustrations that he experienced in these efforts caused his final years to unfold like a Shakespearean tragedy.

I am writing this essay just before leaving to attend a conference commemorating the centennial of the birth of Armstrong, who was born December 18, 1890 in New York City where he was to spend much of his professional career. The conference, sponsored by the Center for Telecommunications and Information Studies at Columbia University, is to feature an all-day presentation of papers by scholars from several disciplines. They will be concerned with an assessment of Armstrong, his technical inventions, and the engineering, economic, and cultural environments in which he lived and worked. Future publication of the conference papers is planned as a university press book. The Radio Club of America, of which Armstrong was an active member, also has announced plans to publish a special issue of its Proceedings with papers about Armstrong. The annual convention of the Antique Wireless Association held in September 1990 also featured papers. and radio artifact exhibits related to Armstrong.

Armstrong's inventive style was somewhat unusual in that he expressed almost a phobic distrust of mathematical analysis, and his well-crafted technical papers rarely contained an equation. Instead he employed circuit diagrams, oscillograms, and graphical tube characteristics to explain his discoveries. He was like an artist except that his medium was three-dimensional combinations of vacuum tubes, resistors, inductors, and capacitors. He exhibited an intuitive grasp of the effect of changing circuit parameters and could isolate the cause of unexpected phenomena that baffled less perceptive experimenters.

Armstrong graduated with a degree in electrical engineering from Columbia University in 1913 and observed the phenomenon of regenerative feedback in vacuum-tube circuits while still an undergraduate. At Columbia, he came under the influence of the legendary professor-inventor, Michael I. Pupin, who had become wealthy from selling his loading-coil patents to the Bell Telephone Company. Pupin served as a role model for Armstrong and became an effective promoter of the young inventor. In 1915 Armstrong presented an influential paper on regenerative amplifiers and oscillators to the Institute of Radio Engineers (IRE). The paper provoked a dispute with Lee de Forest, who questioned Armstrong's interpretation and his priority in the discovery. Subsequently, regenerative feedback was incorporated into a comprehensive engineering science developed by Harold Black, Harry Nyquist, Hendrik Bode, and others in the period between 1915 and 1940. The methods of analysis and design that they developed proved highly applicable to the related field of servomechanisms during World War II. Bode characterized this convergence of control and communications as having been a "sort of shotgun marriage."

Armstrong conceived the superheterodyne receiver principle in 1918 while serving in the Army Signal Corps in France. As with regenerative feedback, there were other claimants to priority, but he played a key role in the commercialization of the invention during the early 1920's. Armstrong also acquired considerable financial gain through selling the rights to his receiver patents. The Radio Corporation of America (RCA) used his superheterodyne patent to monopolize the market for this type of receiver until 1930. The superheterodyne eventually extended its domain far beyond commercial broadcast receivers and, for example, proved ideal for microwave radar receivers developed during World War II.

In 1933, Armstrong was granted patents on a frequency-modulation system that he promoted as a superior alternative to the established amplitude-modulation broadcasting service. Wideband FM became almost a paradigm of how a generation of engineers may sometimes be so misled by a valid but limited mathematical theory as to overlook a major innovation. Armstrong drew on his own financial resources in a determined effort to establish FM broadcasting until the War intervened. His crusade for FM received additional setbacks in the post-war years from certain regulatory decisions by the Federal Communications Commission. In 1948 he brought suit against RCA for patent infringement, and the litigation process placed great stress on his resources.

The case was not resolved until after his tragic demise early in 1954. His inventive creativity had flourished in an earlier era of radio mania, but he seemed unable to adapt to the new environment of government regulation and protracted litigation after the war. In remarks given at an award ceremony in 1943, he compared patent litigation to "the serpent in the Garden of Eden."

Armstrong was highly esteemed by a generation of radio-electronics engineers and amateur radio enthusiasts. He received the first medal of honor of the IRE in 1918. The importance of his legacy might be appreciated by means of a thought experiment of imagining what the field of telecommunication would be like without regenerative feedback, the superheterodyne receiver, and FM.

*J. E. Brittain
Department of History, Technology and Society
Georgia Institute of Technology*

IEEE NEWS

IEEE-USA STUDY NOTES CHANGES IN PERCEPTIONS TOWARD OLDER AMERICANS IN WORKPLACE

San Jose, CA - (November 3, 2000) IEEE-USA today released the results of a recent study on attitudes about the employability of mid-career and older engineers in the U.S. workforce. The survey's findings lend mixed support to the idea that older electrical and electronics engineers face barriers to continuing employability. Supervisors see problem-solving, communications and teamwork skills as very important and rate engineers age 45 and older as stronger on the first two skills than engineers under age 45. Human resources personnel rank technical knowledge, problem-solving and teamwork highest on the scale of importance and also rated older engineers as stronger problem-solvers and the same as younger engineers when it comes to technical knowledge and teamwork. In two areas that supervisors and HR personnel consider above average in importance -- adaptability and ability to keep up with new developments -- they rate older engineers as weaker than younger engineers. Many of the supervisors and HR personnel interviewed agree that there is an age at which skills possessed by older engineers differ from those possessed by younger engineers and most believe this occurs before age 45.

IEEE-USA and survey research firm Mathew Greenwald & Associates interviewed 528 engineering professionals, including practicing engineers, engineering supervisors and human resources professionals for the telephone survey. The purposes of the survey were: to assess supervisory and employee perceptions about the strengths and weaknesses of older engineers in a rapidly changing, technology-driven, global economy; to gather information about the incidence of age discrimination in IT workplaces; and to compare perceptions about the continuing employability of older engineers and older workers in general. The results of the study were released in conjunction with IEEE-USA's 11th biennial Careers Conference, held in the heart of Silicon Valley at the Wyndham Hotel - San Jose.

The study also returned mixed results in uncovering evidence of age discrimination in the high-tech sector. Only 10 percent of the older engineers surveyed attributed negative work experiences in the past five years to age or age discrimination -- a smaller percentage than had been expected based on the results of earlier surveys. Shank T. Lakhavani, past-chair and current member of the IEEE-USA Workforce Committee, speculates that the "tight" engineering labor market might be an ameliorating factor in this finding, but also credits the continuing education efforts of individual engineers and forward-thinking HR personnel for declining incidence of age discrimination.

"These results are promising for older U.S. workers, many of whom have for too long been overlooked and undervalued for their contributions to the health of the national economy," Lakhavani commented. "Perhaps we are seeing a change in perceptions about older Americans in the workplace."

At the same time, Lakhavani warned older engineers not to be lulled into a false sense of security. "It would be premature, even reckless, to conclude that older workers need not worry about their footing in the U.S. workforce. This report is indicative of movement in the right direction, but we must continue our efforts to ensure the career vitality and utilization of older U.S. engineers in the workforce today. With the high-tech labor market as tight as it is, no U.S. engineer who has kept up with technological change should be out of work."

The IEEE-USA workforce committee believes that additional statistically valid studies are needed to determine the incidence and nature of discriminatory treatment that can be attributed to age.

For an overview of the study results, go to Session 5B of the IEEE-USA Careers Conference program at <http://www.ieeeusa.org/careercon/program.asp> (download the PowerPoint summary at <http://www.ieeeusa.org/careercon/proceeding/voneill.ppt>).

For more information on IEEE-USA's older worker initiatives, visit <http://www.ieeeusa.org>.

FIRST WOMEN ELECTED TO IEEE-USA PRESIDENCY, MEMBER-AT-LARGE

WASHINGTON, D.C. (November 10, 2000) - The results of the 2000 IEEE/IEEE-USA annual elections are in, and for the first time in IEEE-USA's 27-year history, a woman has been chosen as President. LeEarl A. Bryant becomes the fifth IEEE-USA President directly elected by the IEEE's U.S. members, to follow 2001 President Ned R. Sauthoff. In another first for the IEEE's woman members, Shelly R. Born was voted IEEE-USA Member-at-Large, 2001-2002. For background information on the IEEE-USA elections and candidates, visit our nominations and elections Web page at <http://www.ieeeusa.org/election/index.html>

In the IEEE election, Raymond D. Findlay was selected as IEEE President-Elect, 2001. Congratulations to all of our new officers and good luck!

Please note that these results of the 2000 IEEE annual election, as certified by the IEEE Tellers Committee on November 9, 2000, are unofficial until the IEEE Board of Directors accepts the Report of the IEEE Tellers Committee at its meeting of December 3, 2000. In 2000, there were no Constitutional Amendments. The number of ballots mailed was 248,196. The number of valid ballots returned was 49,688. The rate of return was 20.02 percent.

The candidates elected in the other IEEE-wide elections are listed below:

OFFICE OF PRESIDENT-ELECT, 2001

Raymond D. Findlay

OFFICE OF DIVISION DELEGATE/DIVISION DIRECTOR, 2001-2002

Division II - Thomas M. Jahns

Division VI - Loretta J. Arellano

Division X - Toshio Fukuda

OFFICE OF DIVISION DELEGATE-ELECT/DIRECTOR-ELECT, 2001

Division V - Guylaine M. Pollock

OFFICE OF REGION DELEGATE-ELECT/DIRECTOR-ELECT, 2001-2002

Region 2 - Moshe Kam

Region 4 - Burton J. Loupee

Region 6 - Evelyn H. Hirt

Region 10 - Jung U. Seo

IEEE STANDARDS ASSOCIATION PRESIDENT-ELECT, 2001

Ben C. Johnson

IEEE STANDARDS ASSOCIATION BOARD OF GOVERNORS MEMBERS-AT-LARGE, 2001-2002

Profile 2 - Stephen L. Diamond

Profile 3 - E.G. Kiener

Profile 7 - Dennis Bodson

Profile 8 - Daniel R. Benigni

IEEE TECHNICAL ACTIVITIES VICE PRESIDENT-ELECT, 2001
Michael R. Lightner

IEEE-USA PRESIDENT-ELECT, 2001
LeEarl A. Bryant

IEEE-USA MEMBER-AT-LARGE, 2001-2002
Shelly R. Born

THE IEEE-USA's PRESIDENT's COLUMN/NOV.-DEC. 2000 A "FARM TEAM" OF GUEST WORKERS: NOW WHAT? By MERRILL W. BUCKLEY, JR., IEEE-USA 2000 PRESIDENT

Despite our best efforts during the 106th Congress, for the next three years, a substantial number of would-be permanent immigrants will come into the United States to fill high-tech jobs on temporary visas. As the National Research Council taskforce of the National Academy of Sciences put it in "Building a Workforce for the Information Economy," Congress should "consider the effect of having increased the numbers of H-1B visas without having significantly streamlined the labor certification process" Ironically, the NRC report missed its October 1st deadline, and Congress had acted well before the report was released. So it is hard to be sure what the report's next sentence meant: "The Committee believes it would be a mistake to adopt 'stop-gap measures' and miss the opportunity for a considered debate on the nation's immigration policies given the fact that our economy is rapidly becoming more global."

That is exactly what the H-1B hike did - miss the opportunity for a considered debate. So that's the bad news. The good news is that, more than a year after the IEEE-USA and our partners in the Immigration Reform Coalition first made a case for "green cards, not guest workers," IT employers now say they want what we proposed all along: Sandy Boyd, top lobbyist for the National Association of Manufacturers, has called for the next Congress to focus on "green card reforms," suggesting such reforms will eliminate the need for more temporary visa increases. So maybe now, at last, we can build on the "sensible center."

Year in and year out, 50,000-78,000 permanent immigration visas based on employment go unused, while demand for the H-1B NON-immigrant visa exceeds the available number. Green cards are better than guest worker visas not only because they make the new worker a free agent, able to change jobs for higher pay, but also because they provide more effective protection for U.S. workers.

"Politics ain't beanbag," of course, as somebody once put it, and we shouldn't be naive about the high stakes games that are played in our nation's Capitol. All too often these serve no one's interest - not IT employers, nor U.S. workers, much less H-1Bs themselves. For more than a decade, some of those who now claim to support green card reforms have actually worked to prevent them. What will happen next year (if anything), will be based on what each player feels is in his or her particular interest.

What's really at stake in the continuing debate is illuminated by the H-1B visa holders themselves. As our surveys showed, virtually all H-1B visa holders want permanent residency. Harris Miller, the top officer of the Information Technology Association of America, recently said that the H-1B program is a "minor leagues" for IT employers. That is, the IT industry has persuaded the U.S. government to provide it with a large and growing pool of temporary workers who want permanent residency. This pool is larger than the number of green cards available - and much larger than the number of green cards actually issued. The H-1B program serves as a farm team for U.S. employer workers, exactly the way the major leagues have four and five times as many players trying out in the minors: willing to accept lower pay and tough working conditions in hopes of one day making it to the majors.

IT employers and their lobbyists and attorneys denied that this "indentured servant" factor was important in the H-1B program, right up until they decided to fix it by adding a provision in the new H-1B legislation that allows H-1B visa holders to change jobs more easily - but (as the NRC feared) without fixing the green card system itself.

The largest H-1B group, the Immigrant Support Network, has a "solution" for the farm team problem: ISN wants guest workers to be able to sponsor themselves for permanent residency. In other words, it wants to leave the employers out of the employment-based immigration process completely. I think Congress ought to ask what employer would ever pay for a worker's green card, if the workers could buy it themselves? How many workers would gladly pay their life savings if it meant access to good jobs and the prospect of living in the U.S. on an "indefinitely temporary" visa? But Congress has once again evaded its responsibility to ask the tough questions, and has simply kicked the problem down the road. By enacting S.2045, it opened the door to hundreds of thousands of new high-tech guest workers with only a token consideration for U.S. workers in the form of some additional funding for federal education and retraining programs. Congress left true immigration reform lying on the table in favor of the politically expedient "solution."

So what do we do now? Having raised the H-1B visa caps through 2003 after a politically bruising battle, Congress is unlikely to want to revisit the high-tech guest worker issue next year. However, immigration reform could very well become a significant issue because of the increasing recognition that the U.S. immigration system is broken. That realization will grow even stronger as permanent immigration visas continue to go unused and the "train wreck" predicted by IEEE-USA occurs as large numbers of new guest workers begin to apply for permanent status and are unable to obtain green cards. In that case, IEEE-USA will support sensible immigration reforms while urging that the H-1B visa program be scaled back to what Congress originally envisioned, a short-term visa to bring in a limited number of exceptionally talented professionals for truly temporary assignments.

IEEE-USA also intends to monitor closely and to report on abuses, including discriminatory treatment of U.S., and foreign workers; promote K-12 and life-long education; beef-up our employment assistance and professional development services; and take other steps as part of a comprehensive effort to enhance the career vitality of our U.S. members.

Looking ahead, I think IEEE-USA can continue to play a vital role in this effort. Sooner or later, the Congress has to recognize that Ellis Island is not a temp agency, and we hope IT employers will recognize that a workforce welfare program is not the best foundation for their future prosperity. Green cards, not guest workers is a sensible solution that will become increasingly attractive once the veil of election year politics is lifted.

Of course, we want to hear what our members have to think about this subject, and invite your input through our Immigration Reform Grassroots Network at <http://www.ieeeusa.org/grassroots/immreform>

The IEEE & United States Open University Announce Partnership

PISCATAWAY, NJ. (November 27, 2000) - IEEE and United States Open University (USOU) today announced a partnership designed to promote and encourage continuing education and professional development among IEEE members.

IEEE members who enroll in USOU distance learning courses and degree programs via the IEEE web site at www.ieee.org/pdi/open will receive a 10% discount off the price of tuition. The USOU enrollment site joins the IEEE Professional Development Institute (IEEE PDI), gateway website to life-long learning.

USOU, a new, non-profit university, has been established to meet the needs of students whose schedules and commitments prevent them from attending a traditional campus. Dedicated to reducing the barriers to education it combines convenience and flexibility with faculty support and multimedia course materials. To find out more about USOU, see <http://www.open.edu>. Spring 2001 registration is now under way.

“The IEEE is dedicated to providing its members access to high quality-education programs designed to promote their technical vitality and advance their careers,” said Lyle Feisel, Vice President of the IEEE Educational Activities Board. “We are happy that USOU has joined the IEEE PDI roster and encourage all interested IEEE members to explore USOU’s programs and courses.”

“For busy working professionals, USOU offers the opportunity to continue your education without having to meet the demands of a fixed classroom schedule,” said Dr Richard Jarvis, Chancellor of USOU. “With single courses that can help enhance work skills to professional degree programs, we are delighted to join the IEEE PDI roster and look forward to meeting the needs of IEEE members.”

About USOU: United States Open University is the sister institution of The Open University, chartered over 30 years ago in the United Kingdom. Recognized as the world’s leader in part-time education and training for working adults, The Open University has become a model for distance learning programs throughout the work. For more information see <http://www.open.edu>.

For more information, please contact:

For USOU: Josephine Feldman, Deputy to the Chancellor for External Relations, j.a.feldman@open.edu

For IEEE: Alan Trembly, EAB Manager, Business Development, a.trembly@ieee.org

Cut the Cord: Introduction to Wireless Now Available from IEEE.

PISCATAWAY, NJ. (November 27, 2000) - Introduction to Wireless and Personal Communications, an IEEE self-study course, is now available from the IEEE. At the COMDEX 2000 held in Las Vegas, Nevada, L.M. Ericsson Telephone Co. President Kurt Hellström said in a keynote presentation, "We believe that the mobile Internet will soon be bigger than the fixed Internet. It will happen for the same reasons the cords of the telephone were cut. It appeals to a basic human need for freedom and convenience."

Don't be left behind in the wireless transformation. Get the fundamentals from this self-study course.

Dr. Vijay K. Garg has designed this course to provide basic understanding of wireless and personal communications. It includes an overview of the basics of telecommunication systems and traffic engineering; an introduction to cellular/PCS systems, radio propagation; and the fundamentals of radio technology. The course focuses on information processing in wireless communications and explores the fundamentals of wireless mobile communications.

After completing this course, you will be able to:

- demonstrate an understanding of the basics of teletraffic engineering,
- examine information processing in a wireless system (speech coding, channel coding, interleaving, modulation, etc),
- recognize components of a cellular / BCS system,
- develop propagation models and estimate path loss,
- discuss antenna systems and link budget,
- describe 2G North American and European cellular systems.

The course package comes with a study guide, final exam, and the best-selling Prentice-Hall book by Dr. Garg and Joseph E. Wilkes, Wireless & Personal Communications Systems. Upon successful completion of the exam, students are eligible to receive eight (8) IEEE Continuing Education Units (CEUs).

Vijay K. Garg is a Distinguished Member of the Technical Staff at Lucent Technologies, Inc. His professional responsibilities include design of GSM-based systems, evaluation of the performance and capacity of mobile switching centers, and specification of operations system requirements for wireless networks.

To order use code HL5758-TCU: IEEE member price: \$350.00; list price: \$450.00 from the IEEE Customer Service Department, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA; e-mail: customer-service@ieee.org; phone: +1 800 678 4333 (USA and Canada), +1 732 981 0060 (worldwide); Web: <http://shop.ieee.org/store>.

For a complete listing of educational products see www.ieee.org/organizations/eab/cathome.htm.

IEEE-USA's Legislative Agenda Highlights Retirement Savings, Federal Support of R&D and Internet Privacy and Security

WASHINGTON, D.C. (December 1, 2000) - The IEEE-USA Board of Directors adopted its Legislative Agenda for the 107TH Congress (2001-02) and approved a slate of position statements at its meeting in Tampa, Fla., on November 16, 2000. The Legislative Agenda serves to outline IEEE-USA's legislative priorities and to inform IEEE-USA members, policy makers, other professional organizations and the public about electrotechnology public policy concerns. Priorities range from retirement savings to federal support of research and development (R&D) to Internet privacy and security. More information on the Legislative Agenda is available on-line at www.ieeeusa.org/forum/agenda. Highlights included:

ELECTRICITY INDUSTRY RESTRUCTURING: IEEE-USA believes that reliability of electric power systems is of critical importance to our nation's economy. In light of proposals to restructure the electricity industry, who is responsible for the reliable delivery of electric power should be clear, the organization notes. Thus, IEEE-USA recommends that reliability and strong support for R&D of electric power systems are primary considerations in federal and state plans to restructure the electric power industry.

IEEE-USA's position statement on "Information Security in Electric Power" highlights how electric restructuring can create and have created significant financial incentives for malicious intrusion into computers and communications systems of electric power industry and marketplace participants. The paper recommends ways of protecting against these intrusions and detecting them if they occur. These issues were also raised at a May 2000 symposium that IEEE-USA helped organize, "Ensuring Electric Power Reliability, The Challenges Ahead." For more information, visit www.ieeeusa.org/electricpower.

CASH BALANCE PENSION PLAN CONVERSIONS: IEEE-USA strongly believes that pension plan participants must have access to timely and understandable information about benefits provided in employer-sponsored pensions and other retirement savings plans, especially when changes are made to those plans. IEEE-USA encourages employers to disclose in a timely manner useful information about changes in pension plans, and to use pension plan surpluses to reduce any adverse financial effects on long-tenured plan participants. These recommendations are outlined in a new position statement on "Maintaining Equity in Cash Balance Pension Plan Conversions."

ANTI-SPAMMING: Unsolicited commercial e-mail (SPAM) threatens to slow down or reverse progress in the new economy if users shut down their e-mail systems in response to the vast amounts of unwanted information. To combat this, IEEE-USA will support legislation that requires bulk e-mailers to include valid return addresses,

restricts mail unless recipients opt in to bulk e-mail lists and allows Internet Service Providers (ISPs) to develop and implement anti-SPAM policies with appropriate penalties for non-compliance.

While IEEE-USA recognizes the importance of e-mail for advertising and reaching potential customers, it also believes that regulations concerning SPAM should evolve from those applicable to unwanted telephone and fax solicitations. These recommendations are outlined in IEEE-USA's new position statement on "Supporting Legislation to Control Unsolicited E-mail (SPAM)."

UNIFORM COMPUTER INFORMATION TRANSACTIONS ACT: UCITA is a model state law designed to create a uniform legal framework for commercial transactions involving computer software, multimedia products, computer data and databases, online information and similar products. UCITA is considered "a cyberspace commercial statute" and covers contracts that are generally known as "shrink-wrap licenses."

IEEE-USA opposes state adoption of UCITA without significant amendments that protect consumer interests and sustain federal intellectual property rights -- such as reverse engineering -- that promote innovation. IEEE-USA joins many organizations, including 24 state Attorneys General, in opposing UCITA because it would inject an "ironclad statutory framework" in mass-market transactions that is very easy to abuse to the "serious detriment" of individual consumers and business users of computer software, software developers, computer consultants and the general public.

IEEE-USA's new position statement "Information Security in Electric Power" highlights the threats posed by software security vulnerability to reliable electric power, and takes issue with the "self help" provisions of UCITA. These provisions would allow software vendors to embed security vulnerabilities in power software for the purposes of "self help," yet also allow them to disclaim all responsibility for any misuse of that "back door."

UCITA took effect in Maryland on 1 October 2000 and will be implemented on July 1, 2001 in Virginia. It is being considered by other states and the District of Columbia. For more information on IEEE-USA's legislative priorities, position statements and grassroots efforts, visit the IEEE-USA Policy Forum at www.ieeeusa.org/forum.

The IEEE & New Jersey Institute of Technology Announce Partnership

PISCATAWAY, NJ. (December 5, 2000) - IEEE and the New Jersey Institute of Technology's (NJIT) Division of Continuing Professional Education have announced a partnership designed to promote and encourage continuing education and professional development among IEEE members.

IEEE members who enroll in NJIT distance learning courses via the IEEE web site at <http://www.ieee.org/eab/PDI/NJITcourses/index.htm> will receive a 10% discount off the price of tuition. The NJIT enrollment site joins the IEEE Professional Development Institute (IEEE PDI), gateway website to life-long learning.

NJIT has been recognized by The National Science Foundation as a leader in the development of engineering education for the 21st century. It provides the flexibility that IEEE members need, offering distance learning as well as traditional site instruction. The IEEE member discount is applicable only to the distance learning programs. For more specific information on NJIT's current array of graduate, undergraduate, and certificate-bearing courses and degrees, visit their website at www.njit.edu/DL/.

"The IEEE is dedicated to providing its members access to high-quality education programs designed to promote their technical vitality and advance their careers," said Lyle Feisel, Vice President of the IEEE Educational

Activities Board. “We are happy that NJIT has joined the IEEE PDI roster and encourage all interested IEEE members to explore NJIT’s well respected academic programs and courses.”

“We are delighted to be able to offer our courses to IEEE members at this special rate,” said Dr. Gale Tenen Spak, Associate Vice-President of Continuing and Distance Education at NJIT. “The breadth of courses available from NJIT allows engineers to acquire the skills needed to shift to fields with better employment prospects, to enter newly emerging cross-discipline fields, or to explore ones that match their maturing interests.”

2000 CAREERS CONFERENCE VIRTUAL PROCEEDINGS AVAILABLE ONLINE

The 2000 Careers Conference, held in San Jose, California, focused on trends and tips for retention/utilization of high-tech professionals. You can view a collection of papers and presentations given at the conference online in either PowerPoint (PPT) or Portable Display Format (PDF) at:
<http://www.ieeeusa.org/careercon/proceeding/index.html>

A PREDICTABLE, SECURE PENSION FOR LIFE

Need more information on the different types of pension plans offered by private sector employers? IEEE-USA has posted some practical information and tips concerning the traditional defined-benefit retirement plans insured by the Pension Benefit Guaranty Corporation. To view, visit:
<http://www.ieeeusa.org/features/pensions.html>

IEEE-USA OFFERS 2002 FCC FELLOWSHIP

IEEE-USA and the Federal Communications Commission (FCC) are seeking applications from IEEE U.S. members interested in spending a year as an IEEE-USA Executive Fellow in the FCC beginning in January 2002 through December 2002. The ideal candidate will possess expertise in antennas & propagation, Internet technology, satellite systems and/or software radios.

The deadline for receipt of completed applications is February 23, 2001. For more information on the fellowship and how to apply, visit: <http://www.ieeeusa.org/forum/GOVFEL/fcc.html>

GET TECH PUBLIC AWARENESS CAMPAIGN

In October, the U.S. Department of Commerce's Office of Technology Policy (OTP) kicked off Get Tech, a national awareness effort to improve the image of technology professionals and encourage teens to prepare for technical careers. Get Tech targets American's youth, inspiring teens to prepare for the technology-driven jobs of tomorrow.

A centerpiece of the campaign of the campaign will be radio and television public service announcements (PSAs) urging teens to take advantage of the opportunities open to those proficient in math, science and computers. In addition to PSAs, Get Tech has developed a web site <http://www.gettech.org> that provides students with information about careers of the future along with other features.

Joining OTP as founding sponsors of Get Tech are the National Association of Manufacturers and Women in Film. The sponsors are seeking other partners, including groups that will distribute information to students, parents and teachers; host local events and support local Get Tech activities; and, provide high visibility to the initiative.

For more information on how to become a Get Tech partner, contact Karen Laney-Cummings at <mailto:klc@ta.doc.gov>.

The IEEE Cincinnati Section Executive Committee

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